to the Incident. Then, beyond these two Prisms I placed a third, which might refract that emergent Light, and by that Refraction cast the usual Colours of the Prism upon the opposite Wall, or upon a sheet of white Paper held at a convenient distance behind the Prism for that refracted Light to fall upon it. After this I turned the Parallelopiped about its Axis, and found that when the contiguous Sides of the two Prisms beeame so oblique to the incident Rays that those Rays began all of them to be reflected, those Rays which in the third Prism had suffered the greatest Refraction and painted the Paper with violet and blew, were first of all by a total Reflexion taken out of the transmitted Light, the rest remaining and on the Paper painting their Colours of Green, Yellow, Orange, and Red as before; and afterwards by continuing the motion of the two Prisms, the rest of the Rays also by a total Reflexion vanished in order, according to their degrees of Refrangibility. The Light therefore which emerged out of the two Prisms is compounded of Rays differently Refrangible, seeing the more Refrangible Rays may be taken out of it while the less Refrangible remain. But this Light being trajected only through the Parallel Superficies of the two Prisms, if it suffered any change by the Refraction of one Superficies it lost that impression by the contrary Refraction of the other Superficies, and so being restored to its pristine constitution became of the same nature and condition as at first before its Incidence on those Prisms; and therefore, before its Incidence, was as much compounded of Rays differently Refrangible as afterwards.

Fig. 22. *Illustration.* In the 22th Figure A B C and B C D are the the two Prisms tied together in the form of a Parallelopiped, their Sides B C and C B being contiguous, and their Sides A B and C D Parallel. And H J K is the third Prism,

Prism, by which the Sun's Light propagated through the hole F into the dark Chamber, and there passing through those sides of the Prisms AB, BC, CB and CD, is refracted at O to the white Paper P T, falling there partly upon P by a greater Refraction, partly upon T by a less Refraction, and partly upon R and other intermediate places by intermediate Refractions. By turning the Parallelopiped A C B D about its Axis, according to the order of the Letters A, C, D, B, at length when the contiguous Planes B C and C B become sufficiently oblique to the Rays F M, which are incident upon them at M, there will vanish totally out of the refracted Light O P T, first of all the most refracted Rays O P, (the rest O R and O T remaining as before) then the Rays O R and other intermediate ones, and lastly, the least refracted Rays O T. For when the Plane B C becomes sufficiently oblique to the Rays incident upon it, those Rays will begin to be totally reflected by it towards N; and first the most Refrangible Rays will be totally reflected (as was explained in the preceding experiment) and by consequence must first disappear at P, and afterwards the rest as they are in order totally reflected to N, they must disappear in the same order at R and T. So then the Rays which at O suffer the greatest Refraction, may be taken out of the Light M O whilst the rest of the Rays remain in it, and therefore that Light M O is Compounded of Rays differently Refrangible. And because the Planes A B and C D are parallel, and therefore by equal and contrary Refractions destroy one anothers Effects, the incident Light F M must be of the same kind and nature with the emergent Light M O, and therefore doth also consist of Rays differently Refrangible. These two Lights F M and M O, before the most refrangible Rays are separated out of the emergent Light M O agree in Co-

 lour,